

ABSTRACT

A dielectric layer (112) having a HDP liner layer (104) under the dielectric gap-fill layer (106) (e.g., HSQ/SOG). The HDP process has a deposition and a sputter-etch component. The sputter-etch component results in an HDP liner (104) with a sloped edges on a portion (105) of the liner over the metal lead. The HDP liner (104) profile results in an effective decrease in the metal surface area which, in turn, limits the amount of dielectric fill (106) deposited over the lead.

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